
NORTH CAROLINA'S PHRST LINE REPORT

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Using New Technology for Case Reporting: A Special Report from PHRST 5 on Triple Play, Phase I

One of the statewide goals for Triple Play was to demonstrate the collaboration between Public Health and Agriculture, especially in the areas of disease investigation and Geographic Information Systems. In Region 5 we were presented with a golden opportunity to conduct a “proof of concept” using the pocket-PCs that PHRST 5 has developed to provide data entry into the Multi-hazard Threat Database developed by NCDA. PHRST 5 staff members prepared for their primary role in Phase I of the Triple Play exercise which was to conduct an “outbreak investigation” consisting largely of entering case reports into the NCDA’s Multi-hazard Threat Database (MHTD). About a half-dozen staff members of the Guilford County Department of Public Health and PHRST 5 registered to use the MHTD and received minimal data-entry training prior to the exercise. The NCDA in turn worked with the ESRI GIS company to develop the Internet interface for the MHTD and to develop an ARCPAD form for the pocket-PCs used by PHRST 5.

Over the course of the exercise, PHRST 5 and the Guilford County DPH received a total of 150 case reports. Of those, 110 met the case definition requiring data entry and reporting. A central challenge posed by the exercise was the need to enter case report data into the MHTD to track the spread of the outbreak. To accomplish this task an “instant operations center” was set up using laptops and pocket-PCs equipped with wireless communications cards. This augmented the desktop computers available in the PHRST 5 offices and the Health Surveillance and Analysis Unit, allowing staff to successfully enter data to the MHTD using four different methods:

- **Desktop PCs:** Desktop PCs were used to access the main Internet interface with the MHTD at <https://www.ncmhtd.com/dhhs/ph/>. This site provided the public health viewer to check on the spread of the outbreak.
- **Pocket PCs and Laptops using Wireless Cards:** The Pocket-PCs using the Windows CE operating system cannot access “https” (secure socket) Internet sites, so the NCDA Emergency Programs Office set up a parallel site at <http://www.ncagrgis.com/plague/pcfif.asp>. Using iPAQs equipped with Sierra Wireless cards allowed access to the site and the ability to enter data into the MHTD. Data from this access point went into the same database as data entering the https site. The problem with entering data this way was that the form's format did not fit the iPAQs' smaller screens.
- **Laptop Computer using Cell Phone and Cable:** A method that alleviated this problem was to use a laptop computer connected by a data cable (Verizon’s Mobile Office Kit) to a cell phone. Using the same <http://www.ncagrgis.com/plague/pcfif.asp> site allowed easier data entry via the laptop because the form could be seen without having to scroll around.
- **Pocket PCs using installed Arcpad Form and Wireless Cards:** On the morning of the third day of the exercise, staff from the NCDA Emergency Programs Office drove from Raleigh to Greensboro to install a customized ArcPad form on the epidemiologist's iPAQ. Instead of accessing the MHTD website and entering the data on the web form, the epidemiologist used a form that was installed on his iPAQ (it was the same form). By entering the data, selecting the geographic location on the screen's map, and clicking OK, the data was sent automatically and wirelessly to the MHTD in Raleigh where it was automatically added to the data collected by the other methods.

Staff successfully entered about three-quarters of the cases into the MHTD. Registered users can view the distribution of cases on a North Carolina map through the MHTD Web site at <https://www.ncmhtd.com/dhhs/ph/>. Though there were some technical glitches most of them were resolved during the exercise, and other issues such as real-time form development are being worked out as a result of lessons learned during the exercise. One exciting possibility that emerged from the exercise is that of using the MHTD as a “one-stop” data entry portal. This would allow case reports to not only go into the geographic mapping interface at the NCDA, but also to automatically populate a database that can be extracted into a statistical analysis programs such as Epi-Info 2002.

Mark H. Smith, Epidemiologist, PHRST 5

State Office Reports

Step Up to the Plate!

You can now order "licenses plates" with your regional logo from Cindy Bourgeois at Image First in Apex. These are polystyrene plates with a one-color imprint that can be placed on the front of your work or private vehicle to help identify you as a public official and to impress your friends and neighbors. The minimum quantity for an order is 50. Following is the pricing on different quantities.

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Staff Changes

Barbara Callahan joined PHP&R in November as the Focus Area G, Bioterrorism Training and Education Coordinator. Most recently an education coordinator with an AHEC in Georgia, Barbara brings a wealth of experience that includes a background in nursing, professional counseling and education.

Regional Surveillance Teams



Beaufort, Bertie, Camden, Chowan, Craven, Currituck, Dare, Edgecombe, Gates, Greene, Halifax, Hertford, Hyde, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank, Perquimans, Pitt, Tyrrell, Washington and Wilson

Investigations/Evaluations

PHRST 1 met with a health department regarding a cluster of Community Acquired Methicillin Resistant Staphylococcus Aureus.

Education & Training

- Provided NC HAN training for Northampton County Health Department.
- Presented “Biological Agents Used in Bioterrorism” to the Northampton County disaster preparedness committee.
- Provided “Bioterrorism 101” training to the Medical staff at Roanoke-Chowan Hospital and the East Carolina University MPH students.

Preparedness and Planning

- Attended “Emergency Services Personnel: Responding to Radiation Emergencies” hosted by the Oak Ridge Institute for Science and Education’s Radiation Emergency Assistance Center/Training Site (REAC/TS) with assistance from the Emergency Management Laboratory.
- Attended “Emergency Medicine 2003” Conference in Greensboro.
- Attended Hazmat Technician training for certification.
- Attended an ICS training for public health in Chapel Hill.
- Three team members completed Incident Command System 200 and 300 training and certification.
- Observed a decon exercise in Martin County.
- Met with Martin County EMS to review PPE Training.
- Met with Emergency Management Coordinators in the Eastern Region to review the EM Vulnerability Assessment.
- Worked with the Dare County Health Department, Emergency Management and state and federal agencies in public health preparedness for the First Flight Celebration, December 12-17.
- Assisted in the development of the ERAC Disaster Preparedness Subcommittee plan and attended the full Disaster Preparedness Subcommittee. The Public Health group participating in this committee continues to grow as this forum lends itself to focusing on the unique role of public health in disaster preparedness.
- Offered “Respiratory Protection Plan” training to each health department in Region 1 and began meeting with counties to review the benefits of the training.
- Met with Pitt County MIS to acquire mapping programs and GIS data for the iPAQ pocket PC and hosting computers in the office.
- Participated in “Radio 101” class and had radio installed in the vehicle and picked up handheld units.
- Assisted with Phase II of the statewide Triple Play Exercise. Beaufort County Health Department held a mock SNS dispensing site to provide prophylaxis for the plague as played out in the statewide exercise. Thank you to the Health Director and staff at Beaufort County Health Department for participating in the Triple Play Exercise! We all learned a great deal to share.



Brunswick, Carteret, Columbus, Duplin, New Hanover, Onslow, Pender

- Participated in the Onslow County Radiological exercise: Joint field exercise with Onslow County and Camp Lejeune using a 'dirty bomb' event. Practiced use of ICS as well as fire departments and hospital set-up of field decon stations.
- Participated in the Onslow County SNS drug dispensing clinic during Phase II of Triple Play (Nov 14).
- Working with New Hanover County and SORT on creating county SNS plan. New Hanover was chosen as one of the first counties to receive assistance from SORT.

- ICS training in Chapel Hill. (Now we get it!)



Bladen, Cumberland, Harnett, Hoke, Johnston, Lee, Moore, Richmond, Robeson, Sampson, Scotland, Wayne

EDUCATION and TRAINING ACTIVITIES

- Conducted interviews for state position at Cooper Building, Raleigh, 10/2.
- Attended Essence Training at Fort Bragg, 10/2.
- Attended EMS 30th Annual Conference, Greensboro, 10/5 – 10/8.
- Attended SNS Planning Meeting at Scotland County Health Department, 10/14.
- Attended ICS Training at Friday Center, Chapel Hill, 10/27.
- Conducted Respiratory Protection Training at Scotland County Health Dept., 10/31.
- Participated in Orbit Comet Tabletop Exercise, Fort Bragg, 10/20.
- Attended Radio 101 Communications, Cary, 11/3.
- Conducted Respiratory Protection Training at Cumberland County Health Department, 11/4.
- Conducted Respiratory Protection Training at Cumberland County Health Department, 11/10.
- Presented Botulism in Argentina to Cumberland County Health Department, 11/19.
- Participated in PIO Tabletop Exercise, Cape Fear Hospital, 11/07.
- Scotland County Health Department participation in Phase II of Triple Play Exercise, 11/14.
- Hosted the Regional Health Director's Conference at Holiday Inn, I-95, 11/5.
- Attended Wayne County Health Department BT Planning Meeting, 11/18.
- Attended Cumberland County Emergency Task Force Meeting, 11/18.



Alamance, Chatham, Orange, Person, Franklin, Wake, Warren, Durham, Vance, Granville

PHRST 4 conducted a "Prevent Carbon Monoxide (CO) Poisonings in Our Communities" meeting on December 1 in Chapel Hill to strategize CO poisoning prevention on a regional basis. The attendees were a diverse group of people including leaders in the Latino community, health educators, local health directors, ED physicians, emergency management and environmental health professionals.

PHRST 4 also participated in the Triple Play Exercise at the Wake County dispensing site on November 14. The team's role was to observe the process by acting as various members of the community who arrived at the site to receive medication after becoming ill or being exposed to the plague bacillus.



Alleghany, Ashe, Caswell, Davidson, Davie, Forsyth, Guilford, Montgomery, Randolph, Rockingham, Stokes, Surry, Watauga, Wilkes, Yadkin

- Steve Ramsey attended REAC/TS in Gatlinburg, Tenn.
- All team members participated in EM 2003 Conference.
- Steve Ramsey completed Respiratory Protection Training for Davie, Wilkes, and Randolph counties.
- Steve Ramsey provided mobile GIS training for Surry and Yadkin counties.
- Steve Ramsey and Mark Smith attended Multihazard Threat Database Training in Raleigh.
- Mark Smith participated in the GIS Task Force meeting.
- Debbie Garrett and Steve Ramsey coordinated smallpox clinics in Davie and Davidson counties.
- Debbie Garrett conducted a smallpox question and answer session for the Appalachian Health District Board of Health and Commissioners.
- Chris Ohl, Mark Smith, Steve Ramsey, George Chambless, and Debbie Garrett participated in Phase I of Triple Play. In addition to the epi investigation and follow up, Steve Ramsey and Frank Beck (PHRST 1) participated with RRT 5 in a sampling and decon exercise at the Greensboro Fire Training Center.
- Debbie Garrett attended the Watauga County BT Task Force meeting.



Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Yancey

Wendy Kady, Pat Fugate, Emily Sickbert-Bennett (PHRST 4), and Martha Salyers attended the Incident Command Train-the-Trainer Course at Emergency Management Institute (EMI) in Emmitsburg, Md in October. They are now certified to teach beginning through advanced ICS. This training was an opportunity to interact with and learn from first responder managers from more than a dozen states. The four also were group facilitators in the Public Health ICS training in Chapel Hill in October.

PHRST 6 staff members have been busy planning and participating in several multi-disciplinary exercises. Two exercises – one in Haywood County and one in Madison County – took place in November. Additional exercises in Burke, Caldwell, and Macon counties and the Toe River Health District (Avery-Mitchell-Yancey) are scheduled to take place over the next few months. PHRST 6 also worked with Swain County and the Eastern Band of Cherokee Indians who ran a local dispensing site for Phase II of the Triple Play exercise.

PHRST 6 hosted DHHS Secretary Carmen Hooker Odom in September during her visit with public health constituents in western North Carolina. At the meeting, PHRST 6 briefly presented the hot-off-the-presses Hurricane Isabel Rapid Needs Assessment. Representatives of PHRST 6's Steering Committee (Health Directors and hospital administrator), RRT 6, MATRAC, Burke County Emergency Management, EMS, Eastern Band of Cherokee Indians, Infection Control Practitioners, NCDA&CS Emergency Programs, SBI,

and local law enforcement attended and discussed their partnership with public health through a brief scenario. PHRST 6 was honored to have Secretary Odom as a guest.

PHRST 6 welcomes Dr. Jennifer Huffman, the new Emergency Programs regional veterinarian, to their staff. Jennifer is a graduate of NCSU and has both human and animal disease outbreak investigation experience.

Congratulations to Wendy Kady, CIH! Wendy achieved Certified Industrial Hygienist status in October. This was a rigorous process and the team is very proud of Wendy.

The Buncombe County Regional State Laboratory for Public Health is under construction, with completion anticipated by January 2004. Mary Edwards has been very busy shepherding the lab to completion, visiting local labs in hospitals and health departments with protocols and training, and developing policies and procedures.

Congratulations to Anita DuPree (formerly Putnam). In August Anita was married in Waynesville to Paul DuPree.

PHRST 6 assisted Macon, Buncombe, Haywood, and McDowell counties with disease outbreaks in the third quarter of 2003. The outbreaks included two hepatitis A, one viral meningitis, and one pertussis outbreak.

PHRST 6, the counties of Macon, Clay, and Cherokee, and the American Red Cross have been awarded a Medical Reserve Corps grant by the Office of the Surgeon General, US DHHS. The office awards \$50 000 per year for three years to develop volunteer medical corps for support during disasters. This is one of five North Carolina sites to receive MRC funds this year.



Alexander, Anson, Cabarrus, Catawba, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly and Union

Strategic National Stockpile (SNS) Exercise Planning

PHRST 7 played a major role in the planning and operations of the SNS reception and staging site (RSS) and the dispensing site in Mecklenburg County. The Mecklenburg RSS functioned as a secondary reception site, receiving medical supplies from the primary (Wake County) site on November 12, and shipping supplies to sites in Loris (South Carolina), Cabarrus County, and Mecklenburg County on November 12-13. The RSS then functioned to recover these supplies after the dispensing exercises were terminated. The Mecklenburg County Dispensing Site began its operations at 6 a.m. on November 13 with dispensing to the public beginning at 7:30 a.m. Students from North Mecklenburg High School's Health Occupations and Physical Education classes exhibited their bountiful acting talents as they performed the roles of plague victims and those potentially exposed to *Y. pestis*. During a 2.5 hour period, a total of 750 citizens – many being ill, elderly, physically disabled, and parents of unruly children – received pharmaceuticals.

After the Mecklenburg County Dispensing Site shut down, the PHRST 7 team traveled to the Cabarrus County Dispensing Site to observe its operations. Their dispensing site was held at the Cabarrus County Events Arena and also used high school students as their “victims.” Student nurses from UNC-Charlotte assisted in the dispensing activities.

The SNS exercise demonstrated the ability of local agencies to collaborate and coordinate operations to successfully receive and dispense SNS materials. Much was learned from the exercise and these lessons will be applied to improve local plans.

Training/Presentations

PHRST 7 conducted several training sessions during the months of October and November. Alexander County received respiratory protection training with 12 of their staff undergoing fit testing. Another visit is being scheduled to fit test the remainder of their staff. Members of the epi team from Stanly County were provided instruction on using Epi Info 2002. About 20 Disease Investigator Specialists from the Charlotte STD Branch were provided instructions about smallpox vaccination availability, adverse side effects, and other elements of the vaccination program.

PHRST 7 also gave several presentations during this time period. On November 19, PHRST 7 presented an overview of public health response to bioterrorism to the Mecklenburg Chapter of the Kiwanis Club International. On November 20-21 the PHRST 7 team presented an overview of the SNS exercise to the staff of the Mecklenburg County Health Department.

Outbreak Investigation

On November 6, Iredell County Health Department asked PHRST 7 for assistance in investigating a food-borne disease outbreak. Working in collaboration with the NC DHHS Department of Epidemiology, data were received from Iredell County and entered into an Epi Info 2002 database. The villain was determined to be a ham contaminated with staphylococcus bacteria purchased at a Statesville restaurant. Sounds yummy right before the Thanksgiving holidays, doesn't it?

Editor's Note:

The purpose of this newsletter is to provide information briefs that are useful and timely. It is designed to be scanned quickly to determine topics of interest and then provide pertinent information in two or three paragraphs. The primary contributors to the newsletter are the Office of Public Health Preparedness and Response and the state's seven Public Health Regional Surveillance Teams. This is because the PHRST Line Report is one of our primary communication tools as well as an historical record of our efforts. Topics submitted by counties, partners and stakeholders are also welcome as they pertain to bioterrorism preparedness. Submissions should be e-mailed to our editor at Bill.Furney@ncmail.net.

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